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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/700,976

Applicant(s)

RHODES, DAVID L.

Examiner

JUAN C. OCHOA

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Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 May 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16, 18-27 and 31-34 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16, 18-27, and 31-34 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB-08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. The amendment filed 05/09/08 has been received and considered. Claims 1–16, 18–27, and 31–34 are presented for examination.

Claim Interpretation

2. Office personnel are to give claims their "broadest reasonable interpretation" in light of the supporting disclosure. In re Morris, 127 F.3d 1048, 1054-55, 44 USPQ2d 1023, 1027-28 (Fed. Cir. 1997). Limitations appearing in the specification but not recited in the claim are not read into the claim. In re Prater, 415 F.2d 1393, 1404-05, 162 USPQ 541,550-551(CCPA 1969). See *also In re Zletz, 893 F.2d 319,321-22, 13 USPQ2d 1320, 1322(Fed. Cir. 1989) ("During patent examination the pending claims must be interpreted as broadly as their terms reasonably allow").... The reason is simply that during patent prosecution when claims can be amended, ambiguities should be recognized, scope and breadth of language explored, and clarification imposed.... An essential purpose of patent examination is to fashion claims that are precise, clear, correct, and unambiguous. Only in this way can uncertainties of claim scope be removed, as much as possible, during the administrative process.
3. Claims recite "network application codes". The specification defines "network application codes" as "application level codes (such as FTP or TELNET), etc" (see page 2, [002], lines 6–7); "network application codes (i.e., those that communicate over a network)" (see page 3, [004], lines 3–4); and "networked application code (herein called

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simply application code)" (see page 4, [006], lines 4–5). The claims reciting "network application codes" were interpreted according to these definitions.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. Claims 1–16, 18–27, and 31–34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maurer, Max M., (Maurer hereinafter), U.S. Patent 7,006,963, taken in view of Bleier et al. (Bleier hereinafter), U.S. Patent 6,832,184.

7. As to claim 1, Maurer discloses a method for virtually simulating actual networked applications within a network simulation, comprising the steps of: providing a networked application code and a client interface (see "networked application code" as "Lotus Notes" in col. 8, lines 31–47) which communicates with the network application code; providing a network simulator that simulates a network of communicating nodes;

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providing a server that interfaces to the network simulator, the server comprising functionality for establishment of a bidirectional mapping of communications of said networked application code to a simulated node in the network simulator, the client interface being aware of the server and communicating with the server over a network, the network simulator being able to interoperate with the server (see col. 10, lines 1–53) such that communication to the networked application code from the server appears to originate from the simulated node to which the networked application code is mapped (see “By enabling simulation of clients each having a unique identity, it is possible to provide a simulation that is indistinguishable from real client traffic” in col. 7, lines 15–20 and col. 7, line 66 to col. 8, line 2); and modifying, via the one or more client interfaces and the server, the network application code by removing or inserting messages to or from simulated nodes (see col. 6, lines 45–63).

8. While Maurer discloses a networked application code and a client interface, Maurer fails to **specifically** disclose a client interface which communicates with the network application code.

9. Bleier discloses a client interface which communicates with the network application code (see col. 7, lines 53–61).

10. Maurer and Bleier are analogous art because they are both related to computer networks simulation.

11. Therefore, it would have been obvious to one of ordinary skill in this art at the time of invention by applicant to utilize the simulation tool of Bleier in the computer system of Maurer because Bleier simulates multiple clients in a client/server

environment (see col. 6, lines 65–67), and as a result, Bleier reports the following improvements over his prior art: a scriptable simulator able to check responses, a simulator centrally and dynamically controllable, and simulated clients indistinguishable from real clients (see col. 6, lines 44–59).

12. As to claim 2, Maurer discloses a method for virtually simulating actual networked applications within a network simulation, comprising the steps of: initiating a server to interface to a network simulator; initiating a client interface to interface with the server over a network, bridging the networked application code (see “networked application code” as “Lotus Notes” in col. 8, lines 31–47) via the client interface so that the network application code can communicate with the server (see col. 10, lines 1–53); mapping the communications of the networked application code to a simulated node in the simulator, communication from the networked application code now appearing to originate from the simulated node (see “By enabling simulation of clients each having a unique identity, it is possible to provide a simulation that is indistinguishable from real client traffic” in col. 7, lines 15–20 and col. 7, line 66 to col. 8, line 2); and insertion of and extraction of messages or packets from or to application code to simulated node via the one or more clients and servers (see col. 7, lines 23–25 and/or col. 11, lines 10–27). Bleier discloses the client interface communicating with a networked application code (see col. 7, lines 53–61).

13. As to claim 3, Maurer discloses a method wherein the step of initiating a server further comprises the step of establishing bidirectional mapping of the networked

application code to the simulated nodes in the network simulator (see col. 6, lines 45–54).

14. As to claim 4, Maurer discloses a method wherein the network simulator is IP based (see col. 11, lines 10–18).

15. As to claim 5, Maurer discloses a method wherein the network simulator further comprises an upper layer protocol (see col. 11, lines 10–18).

16. As to claim 6, Maurer discloses a method wherein the protocol is selected from the group consisting of TCP (see col. 11, lines 10–18) and UDP upper layer protocols.

17. As to claim 7, Maurer discloses a method wherein the application codes and network application code further utilize a communication styles and wherein communication style is selected from the group consisting of point-to-point, anycast, multicast and broadcast (see "point-to-point" in col. 2, lines 20–37 and col. 6, lines 16–19).

18. As to claim 8, Bleier discloses a method wherein the network simulator comprises a plurality of network simulators (see col. 7, lines 9–15).

19. As to claim 9, Bleier discloses a method wherein the server comprises a plurality of servers (see col. 7, lines 9–15).

20. As to claim 10, Maurer discloses a method wherein the mapping of application code to the simulated node is dynamic (see col. 12, lines 1–5).

21. As to claim 11, Maurer discloses a method wherein the network simulator executes in real-time (see col. 6, lines 45–54).

22. As to claim 12, Bleier discloses a method wherein the execution time of the network simulator is configurable (see col. 11, lines 53–57).
23. As to claim 13, Maurer discloses a method wherein the client interface and the server are implemented on separate hardware (see Fig. 13).
24. As to claim 14, Bleier discloses a method wherein the networked application code is executed in parallel over a distributed system (see col. 7, lines 53–61).
25. As to claim 15, Maurer discloses a method wherein the network simulator is IP based (see col. 11, lines 10–18).
26. As to claim 16, Maurer discloses a method wherein the network simulator further comprises a protocol (see col. 11, lines 10–18).
27. As to claim 18, Maurer discloses a method wherein the application code further utilizes a communication style, and wherein the communication style is selected from the group consisting of point-to-point, anycast, multicast and broadcast (see “point-to-point” in col. 2, lines 20–37 and col. 6, lines 16–19).
28. As to claim 19, Bleier discloses a method wherein the network simulator comprises a plurality of network simulators (see col. 7, lines 9–15).
29. As to claim 20, Bleier discloses a method wherein the one or more servers comprise a plurality of servers (see col. 7, lines 9–15).
30. As to claim 21, Maurer discloses a method wherein the mapping of application code to simulated network node is dynamic (see col. 12, lines 1–5).
31. As to claim 22, Maurer discloses a method wherein the network simulator executes in real-time (see col. 6, lines 45–54).

32. As to claim 23, Bleier discloses a method wherein the execution time of the network simulator is configurable (see col. 11, lines 53–57).
33. As to claim 24, Maurer discloses a method wherein the client interface and the server are implemented on separate hardware (see Fig. 13).
34. As to claim 25, Bleier discloses a method wherein the networked application code is executed in parallel over a distributed system (see col. 7, lines 53–61).
35. As to claim 26, Maurer discloses a method wherein the server is a plug in to the simulator (see Abstract, lines 9–14 and col. 6, lines 20–29).
36. As to claim 27, Maurer discloses a method wherein the server is a plug in to the simulator (see Abstract, lines 9–14 and col. 6, lines 20–29).
37. As to claim 31, Maurer discloses a method wherein the client interface includes a plurality of client interfaces and the networked application code includes a plurality of networked application codes, each client interface associated-with at least one of the plurality of networked application codes (see col. 6, line 65 to col. 7, line 1).
38. As to claim 32, Maurer discloses a method wherein the client interface includes a plurality of client interfaces and the networked application code includes a plurality of networked application codes, each client interface associated with at least one of the plurality of networked application codes (see col. 6, line 65 to col. 7, line 1).
39. As to claim 33, Maurer discloses a computer system for virtually simulating actual networked applications within a network simulation comprising: a plurality of clients, each client having a client interface (see col. 8, lines 31–47); a network simulator including a plurality of simulated nodes; a server, the server having functionality for

interfacing to the network simulator; and wherein each client communicates with the server over a network, and wherein each client executes the networked application code and the client interface so that the networked application code can communicate with the server (see col. 10, lines 1–53), and wherein the client interface maps the networked application code to one of the simulated nodes so that communication from the networked application code now appears to originate from the simulated node (see “By enabling simulation of clients each having a unique identity, it is possible to provide a simulation that is indistinguishable from real client traffic” in col. 7, lines 15–20 and col. 7, line 66 to col. 8, line 2), and inserts and extracts messages or packets from the networked application code (see col. 7, lines 23–25 and/or col. 11, lines 10–27). Bleier discloses the client interface communicating with an associated networked application code executing on the client (see col. 7, lines 53–61).

40. As to claim 34, Maurer discloses a system wherein server has functionality for providing message or packet transfer among simulated nodes and/or networked application codes (see col. 10, lines 1–21).

Response to Arguments

41. Applicant's arguments filed 05/09/08 have been fully considered, but they are not persuasive.

42. Regarding the specification objections, the amendment corrected all deficiencies.

43. Regarding the claim objections, the amendment corrected all deficiencies.

44. Regarding the rejections under 103, Applicant's arguments have been considered, but they are not persuasive.

45. Applicant argues, (see page 10, 2nd paragraph), that Maurer and Bleier fail to teach "virtually simulating actual networked applications within a network simulation" as recited in independent claims 1, 2, or 33. However, Examiner does not see "virtually" or "**actual** networked applications", as argued, expressed in the body of the independent claims 1, 2, or 33. Claims 1, 2, or 33, as written, fail to perform the "virtual" simulation of "**actual** networked applications", as argued. Furthermore, limitations providing intended use do not further limit a claim. See for example the preamble of claim 1, which recites in part: "**for** virtually simulating actual networked applications" (emphasis added). In the instant, the language following the "for" is interpreted as intended use and therefore does not limit the claim. In other words, the preamble is not given patentable weight, because it is not necessary for the life, meaning, and vitality of the claim limitations.

46. Applicant argues, (see page 10, last paragraph to page 11, 1st paragraph), that Maurer and Bleier fail to teach "the network simulator being able to interoperate with the server such that communication to the networked application code from the server appears to originate from the simulated node to which the networked application code is mapped", "bridging the networked application code via the client interface so that the network application code can communicate with the server; mapping the communications of the networked application code to a simulated node in the simulator, communication from the networked application code now appearing to originate from the simulated node", and "wherein the client interface maps the networked application

code to one of the simulated nodes so that communication from the networked application code now appears to originate from the simulated node, and inserts and extracts messages or packets from the networked application code" as recited in independent claims 1, 2 and 33 and "in the present invention the simulation is of a network wherein actual network software (client, server, etc.) is projected as to seem to act on a simulated node. The present invention is not simulating client software at all, but making it 'appear' (unchanged) virtually in a network simulation".

47. Applicant arguments are more specific than the body of the claims language and are therefore not persuasive. Examiner notes that claim 1, line 5 (the body of the claim) reads: "a network simulator that simulates a network of communicating nodes". While the preamble of claim 1 reads "for virtually simulating actual networked applications"; the preamble of claim 1 is not given patentable weight, because the language following the "for" is interpreted as intended use and does not limit the claim.

48. Regarding the feature of claim 2 "simulated node" and the feature of claim 33 "a network simulator including a plurality of simulated nodes", these features correspond with the feature of claim 1 "a network simulator that simulates a network of communicating nodes"; Examiner counter-arguments of claim 1 apply mutatis mutandis to claims 2 and 33. Additionally for claim 33, system claims are not limited by functional limitations.

49. Applicant argues, (see page 11, 2nd paragraph to page 12, 3rd paragraph), that Bleier fails to teach "a client interface which communicates with the network application code". However, Examiner disagrees. Bleier discloses (see "In the present invention,

one or more application programming interfaces (APIs) are provided between the simulation tool and the PAM and ..." in abstract, lines 13–16). As per Bleier's col. 14, line 3 "For example, the PAM 1008 may represent a web browser", Bleier's interface is between the simulation tool and a web browser (Bleier's PAM). A web browser is a networked application code. Therefore, Bleier's interface communicates with a Bleier's networked application code.

50. Therefore it is the Examiner's position that the cited references anticipate the independent claims and the rejections are maintained.

Conclusion

51. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

52. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

53. Examiner would like to point out that any reference to specific figures, columns and lines should not be considered limiting in any way, the entire reference is considered to provide disclosure relating to the claimed invention.

54. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

55. U.S. Patent 6,845,352 (Jay Wang) teaches a traffic emulator (see col. 1, lines 9–10 and Fig. 2) with a network interface (see Fig. 2), which comprises UDP (see col. 4, lines 41–55).

56. Rohit et al., Modeling Traffic Management In Atm Networks With OPNET teaches modifying the network application code by removing or inserting messages to or from simulated nodes (see "segmentation and reassembly of cells" in page 2, col. 2, 3rd paragraph).

57. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Juan C. Ochoa whose telephone number is (571) 272-2625. The examiner can normally be reached on 7:30AM - 4:00 PM.

58. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Rodriguez can be reached on (571) 272-3753. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

59. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

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For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/J. C. O./ 8/5/08

Examiner, Art Unit 2123

/Paul L Rodriguez/

Supervisory Patent Examiner, Art Unit 2123